

Title (en)

Process for the preparation of 3-amino-pyrrolidine derivatives

Title (de)

Verfahren zur Herstellung von 3-Amino-pyrrolidinderivaten

Title (fr)

Procédé de préparation de dérivés d'amino-3-pyrrolidine

Publication

EP 0928787 B1 20020605 (EN)

Application

EP 99100213 A 19990108

Priority

- EP 99100213 A 19990108
- EP 98100381 A 19980112

Abstract (en)

[origin: EP0928787A1] The invention is concerned with a process for the manufacture of 3-amino-pyrrolidine derivatives of the formula <CHEM> wherein R<1> signifies hydrogen, alkyl, cyclo-alkyl, alkenyl, aryl or an amino protecting group; and R<2>, R<3> each independently signify hydrogen, alkyl, cyclo-alkyl, alkenyl or aryl; by converting a compound of the formula <CHEM> wherein X signifies a protected hydroxy group; in the presence of a primary amine of the formula R<1>NH₂ into the pyrrolidine derivative of the formula <CHEM> wherein X and R<1> have the aforementioned significances; which is subsequently reacted in the presence of R<2>R<3>NH under pressure; and with the use of this process for the production of vinylpyrrolidinone-cephalosporin derivatives.

IPC 1-7

C07D 207/14; C07D 501/04

IPC 8 full level

A61K 31/00 (2006.01); **A61K 31/545** (2006.01); **A61K 31/546** (2006.01); **A61P 31/00** (2006.01); **A61P 31/04** (2006.01); **C07D 207/14** (2006.01); **C07D 501/00** (2006.01); **C07D 501/04** (2006.01); **C07D 501/56** (2006.01)

CPC (source: EP KR US)

A61P 31/00 (2018.01 - EP); **A61P 31/04** (2018.01 - EP); **C07D 207/14** (2013.01 - EP KR US); **C07D 501/00** (2013.01 - EP US); **Y02P 20/55** (2015.11 - EP US)

Citation (examination)

EP 0849269 A1 19980624 - HOFFMANN LA ROCHE [CH]

Cited by

EP1148140A1; FR2817550A1; US6420166B2; WO0244146A1; WO0015610A1; EP2050735A4

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB IE IT LI NL

DOCDB simple family (publication)

EP 0928787 A1 19990714; EP 0928787 B1 20020605; AT E218546 T1 20020615; CA 2258166 A1 19990712; CN 1229077 A 19990922; DE 69901627 D1 20020711; DE 69901627 T2 20030220; DK 0928787 T3 20020923; ES 2177139 T3 20021201; JP 2000053642 A 20000222; JP 3639449 B2 20050420; KR 19990067824 A 19990825; US 5977381 A 19991102

DOCDB simple family (application)

EP 99100213 A 19990108; AT 99100213 T 19990108; CA 2258166 A 19990108; CN 99101055 A 19990112; DE 69901627 T 19990108; DK 99100213 T 19990108; ES 99100213 T 19990108; JP 489899 A 19990112; KR 19990000385 A 19990111; US 21346598 A 19981217